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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/039,404 | 10/26/2001 | Michael S. Foster | 030048027US | 2034 |
| 25096 | 7590 | 08/10/2005 | EXAMINER | |
| PERKINS COIE LLP | | | PHAM, BRENDA H | |
| PATENT-SEA | | | ART UNIT | |
| P.O. BOX 1247 | | | PAPER NUMBER | |
| SEATTLE, WA 98111-1247 | | | 2664 | |

DATE MAILED: 08/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/039,404

Applicant(s)

FOSTER ET AL.

Examiner

Brenda Pham

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 October 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-39 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 October 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>2/20/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-39 are pending in this application.

Specification

2. The disclosure is objected to because of the following informalities:

The Patent Application for the following Patent Application is required:

Patent application entitled "METHOD AND SYSTEM FOR VIRTUAL ADDRESSING IN A COMMUNICATIONS NETWORK, " (Attorney Docket No. 030048019US1);

Patent application entitled "METHOD AND SYSTEM FOR LABEL TABLE CACHING IN A ROUTING DEVICE," (Attorney Docket No. 030048024US);

Patent application entitled "METHOD AND SYSTEM FOR MULTIFRAME BUFFERING IN A ROUTING DEVICE," (Attorney Docket No. 030048025 US);

Patent application entitled "METHOD AND SYSTEM FOR DOMAIN ADDRESSING IN A COMMUNICATION NETWORK," (Attorney Docket No. 030048026US);

Patent application entitled "METHOD AND SYSTEM FOR INTERSWITCH LOAD BALANCING IN A COMMUNICATION NETWORK," (Attorney Docket No. 030048027US);

Patent application entitled "METHOD AND SYSTEM FOR INTERSWITCH DEADLOCK AVOIDANCE IN A COMMUNICATIONS NETWORK," (Attorney Docket No. 030048028US);

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Patent application entitled "METHOD AND SYSTEM FOR CONNECTION PREEMPTION IN A COMMUNICATION NETWORK," (Attorney Docket No. 030048029US);

Patent application entitled "METHOD AND SYSTEM FOR NETWORK CONFIGURATION DISCOVERY IN A NETWORK MANAGER," (Attorney Docket No. 030048030US);

Patent application entitled "METHOD AND SYSTEM FOR NETWORK CONFIGURATION DISCOVERY IN A NETWORK MANAGER," (Attorney Docket No. 030048032US);

Patent application entitled "METHOD AND SYSTEM FOR PATH BUILDING IN A COMMUNICATIONS NETWORK," (Attorney Docket No. 030048033US);

Patent application entitled "METHOD AND SYSTEM FOR RESERVED ADDRESSING IN A COMMUNICATION NETWORK," (Attorney Docket No. 030048035US);

Patent application entitled, "METHOD AND SYSTEM FOR RECONFIGURING A PATH IN A COMMUNICATION NETWORK," (Attorney Docket No. 030048036US);

Patent application entitled, "MEHTOD AND SYSTEM FOR ADMINISTRATIVE PORTS IN A ROUTING DEVICE," (Attorney Docket No. 030048037US);

Patent application entitled, "PARALLEL ANALYSIS OF INCOMING DATA TRANSMISSIONS," (Attorney Docket No. 030048038US);

Patent application entitled, "INTEGRATED ANALYSIS OF INCOMING DATA TRANSMISSIONS," (Attorney Docket No. 030048039US);

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Patent application entitled, "USING VIRTUAL IDENTIFIERS TO ROUTE TRANSMITTED DATA THROUGH A NETWORK," (Attorney Docket No. 030048040US);

Patent application entitled, "USING VIRTUAL IDENTIFIERS TO PROCESS RECEIVED DATA ROUTED THROUGH A NETWORK, " (Attorney Docket No. 030024041US);

Patent application entitled, "MEHTOD AND SYSTEM FOR PERFORMING SECURITY VIA VIRTUAL ADDRESSING IN A COMMUNICATION NETWORK, " (Attorney Docket No. 030048042US);

Patent application entitled, "METHOD AND SYSTEM FOR PERFORMING SECURITY VIA DE-REGISTRATION IN A COMMUNICATIONS NETWORK, " (Attorney Docket No. 030048043US).

Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-5, 8-11, 13-18, 20, 22-25, 27-31, 33, 35-38 are rejected under 35 U.S.C. 102(b) as being anticipated by Moran et al (US 5,590,119)

Claims 1, 14, and 27, Moran et al disclose a method in a switch for selecting a destination port for data, the destination port being connected by a link to a port of another switch, the method comprising: providing a designation that a first port (working (W)) and second port (spare (S)) are equivalent; receiving data that designates that the first port (W) is to be the destination port for the received data; and when the first port is currently unavailable, selecting the second port (S) as the destination port for the received data based on the provided designation that the first port and the second port are equivalent. **{These ports provide input/output connections between each of the nodes and its adjacent nodes. According to figure 3A, Moran et al teach when working link/port 2W1/2W2 are currently unavailable, for example link failure, spare link/port will take upon the communication. Column 4, lines 25-32, Moran et al teach within each of the nodes are a number of ports, identified as W or S, respectively designating working and spare ports. }**

Claims 2, 15 and 28, Moran et al teach wherein the provided designation is stored in a table with an entry for ports of the switch. **{Each of the nodes has a memory M that comprises a store table. The table has stored therein various weights each corresponding to a spare link that is connected to particular one of the spare ports of the node (column 4, line 53-55)}.**

Claims 3, 4, 16, 17, 29 and 30, Moran et al teach wherein an entry for the first port designates that the second port is equivalent to the first port **(column 4, line 53-55).**

Claims 5, 18 and 31, Moran et al further teach wherein a port can be equivalent to multiple other ports. **{According to figure 1, for example, in each of node (2) and node (8) two of the working ports and two of the spare ports are equivalent for transmitting signal between nodes}.**

Claim 8, 9, 22, 23, 35, 36, Moran et al further teaches wherein the provided designation is provided by a source external to the switch. **{(Operational support system (OSS 14)). {An operational support system (OSS) 14 that connects to and oversee the overall operation of the various nodes. OSS 14 provisions the store tables in each of the nodes with updated values, in the event that interconnections are changed among the various nodes. (column 5, lines 10-20)}.**

Claims 10, 24, 37, Moran et al further teach wherein the switch is part of an interconnect fabric **(see figure 1).**

Claims 11, 13, 25, 37 and 38, Moran teach wherein the switch is fibre channel compatible.

Claim 20, 33, Moran et al teach wherein the component that selects the second ports selects the second port from one of the multiple other ports that is available **{(figure 1 shows that selects second port can be any ports between working ports (W) and spare ports (S), see figure 1 node (2) and node (8)}.**

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 7, 12, 6, 19 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moran et al (5,590,119).

Claims 6, 19 and 32, as explained in the rejection statement of claims 1, 14 and 27 (parent claims) Moran et al does not expressively teach wherein the multiple ports have associated priorities and the second port is selected as the destination port when it has a priority that is higher than another of the multiple ports that are available.

However, according to column 7, lines 7-67, Moran et al teach that alternate route/link/port are selected based on the shortest distance between the source node and the destination node.

For example, of the four alternate routes found (see column 7, lines 55-67), two (8-2-4-6-12-10) of FIG. 3D and 8-4-6-12-10 of FIG. 3E obviously would not be considered since they each have a distance value of 600. Of the remaining two, namely 8-2-4-10 of FIG. 3D and 8-4-10 of FIG. 3C each of which has a distance value of 400, it is clear that each of those two alternate path is acceptable.

Therefore, it would have been obvious to assign the priorities to multiple ports in each node that corresponding to the distance between a source node to a destination node.

Claims 7, 21, 34 as explained in the rejection statement of claim 1 (parent claim), Moran et al disclose all the claim limitations recited in parent claim. Moran et al does not teach wherein the received data designates the first port to be the destination port

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based on a mapping of a virtual address of the received data to the first port. While physical addresses were used in the Moran et al, virtual addresses could have been used instead.

It would have been obvious to those having ordinary skill in the art at the time of the invention was made to implement the method of Moran using virtual addresses.

Claims 12, 26, 39, as explained in the rejection statement of claim 1 (parent claim), Moran et al disclose all the claim limitations recited in parent claim. Although Moran et al does not teach wherein the switch is InfiniBand compatible, this claim feature is well known. It is well known in the art that InfiniBand based networks are designed to satisfy bandwidth-hungry network applications, such as those combining voice, data and video on the Internet. InfiniBand architecture is being developed by the InfiniBand Trade Association that includes many hardware and software companies. Its robust layered design enables multiple computer systems and peripherals to work together more easily as a single high-performance and highly available server.

Therefore, it would have been obvious to those having ordinary skill in the art at the time of the invention was made to implement the method of Wong et al in an InfiniBand based networks.

7. The prior art made of record and not relied is considered pertinent to applicant's disclosure.

Wong et al (6,614,758 B2) discloses a load balancing in link aggregation and trunk.

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Merchant (US 6,460,088 B1) discloses a method and apparatus for port vector determination at egress.

Hoppe et al (US 5,412,653) discloses a dynamic switch cascading system.

Conclusion

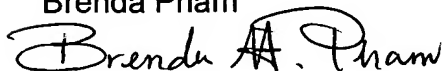
8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brenda Pham whose telephone number is (571) 272-3135. The examiner can normally be reached on Monday-Friday from 9:00 to 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin, can be reached on (571) 272-3134.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (571) 272-2600.

August 2, 2005

Brenda Pham

A handwritten signature in black ink that reads "Brenda A. Pham". The signature is written in a cursive style with a large, stylized "B" and "P".